REMARKS/ARGUMENTS

Claims 1-21 are pending. Claim 12 has been amended. Claim 16 has been canceled without prejudice. Support for the amendments to the claims may at least be found in the specification, claims, and figures as originally filed. No new matter has been entered as a result of these amendments.

Claim 16 was neither objected to nor rejected by the Examiner in his Office Action of November 3, 2004.

The Examiner has objected to the language of the Abstract.

The Examiner has rejected claims 1-6, 8-11, 14-15, and 17 under 35 U.S.C. §103(a) as being unpatentable over Gleeson et al. in view of Froidevaux.

The Examiner has rejected claim 7 under 35 U.S.C. §103(a) as being unpatentable over Gleeson et al. in view of Froidevaux as applied to claims 1-6 and 8-11 above, and further in view of Lawsing.

The Examiner has rejected claims 20-21 under 35 U.S.C. §103(a) as being unpatentable over Gleeson et al. in view of Acker.

The Examiner has rejected claims 12, 13, 18, and 19 under 35 U.S.C. §102(e) as being anticipated by Gleeson et al.

Summary of Applicant Initiated Interview

Applicants would like to thank Examiner Allen for his willingness to listen and consider Applicant's comments in the telephone interview of January 19, 2005.

Attorney Christie requested the Examiner clarify the statement in the cited Section 103 rejection regarding "a person having ordinary skill in the art of sensing physical parameters". Examiner Allen interpreted the statement as

referring to a person having ordinary skill in the art of devices sensing parameters such as temperature and pressure.

Attorney Christie expressed to the Examiner his disagreement with the motivation used to combine the Gleason and Froidevaux references based on the Applicant's tubing structure of claim 1, wherein a second tube is longer to eliminate resonance. Attorney Christie compared the tubing structure of Gleason and the mass used in Froidevaux to suppress resonance in an accelerometer as being contrary structures with no motivation to use the mass in Froidevaux within the tubing structure taught by Gleason to eliminate the incidence of resonance. Examiner Allen agreed and informed Attorney Christie that the claim would be reconsidered and an updated search would be performed.

Objection to the Abstract

The Examiner has objected to the language of the Abstract. Applicant has amended the Abstract to avoid the form and legal phraseology often used in patent claims. Applicant respectfully requests reconsideration and withdrawal of the objection to the Abstract.

Rejections under 35 U.S.C. §103(a)

Claims 1-6, 8-11, 14-15 and 17 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Gleeson et al. in view of Froidevaux.

The Examiner in framing his objection stated in part the following:

> "With respect to the said second tube being of a length sufficient to substantially eliminate the incidence of resonance, Gleeson in view of Froidevaux does not disclose this structure. However since

> Froidevaux at least teaches a means to prohibit resonance (col. 1, lines 45-53), it would have been obvious to a person having ordinary skill in the art to provide the most feasible structural modification possible since it appears that the claimed tube length and the terminating means taught by Gleeson in view of Froidevaux are variances that provide the function of eliminating resonance."
> (Office action, pages 3-4, paragraph 4)

Gleeson et al. discloses a dynamic pressure probe (see Abstract). In particular, Gleeson teaches employing a second tube to attenuate the pressure signal by having the signal travel through the second tube, including the damping coils, until reaching the end of the second tube (page 3, par. [0039]). Then, the signal, if still existent, is reflected and begins traveling back towards the signal source (Id.). Froidevaux teaches that "to obtain reliable and exact measurements with an acceleration meter it is necessary to equip the meter with a damping means which makes it possible to suppress a peak appearing at the resonance frequency F_0 of the system" (col. 1, ll. 43-55). Froidevaux further teaches that, "Of the solutions which make it possible to eliminate this resonance peak, one particularly economical solution consists of locating the mass in a housing integral with the frame to create pneumatic damping by passage of a fluid between two chambers provided in this housing." (Id.).

Applicant's claim 1 recites in part "a terminating element attached to said first end of said second tube wherein said second tube is of a length sufficient to substantially eliminate the incidence of resonance". The structure of Froidevaux,

specifically the damping means described as "locating the mass in a housing integral with the framed crate pneumatic damping by passage of a flow between two chambers provided in this housing" (col. 1, ll. 43-55), does not teach, suggest, or motivate one skilled in the art to arrive at the element and/or structure recited in Applicant's claim 1. In particular, the element "wherein said second tube is of a length sufficient to substantially eliminate the incidence of resonance" is not taught by either Froidevaux or Gleeson, as stated by the Examiner in framing his objection. Moreover, there is no motivation in either Gleeson or Froidevaux to combine the mass taught by Froidevaux in the structure taught by Gleeson to arrive at the elements recited in Applicant's claim 1. Consequently, the combination of Gleeson et al. in view of Froidevaux fails to recite all of the elements of Applicant's claim 1. As a result, Applicant's claim 1 and dependent claims 2-6 and 8-11 by virtue of their dependency upon claim 1 are also patentable over Gleeson et al. in view of Froidevaux.

Applicant's claims 14-15 and 17 are dependent upon Applicant's amended independent claim 12. Applicant's amended independent claim 12 now recites the following:

"12. A probe assembly, comprising:
a first tube;
a second tube; and
a first sensor between said first and second tubes, wherein said second tube has a length selected to limit reflections or resonance within said second tube."

As stated earlier, the Examiner has stated that the combination of Gleeson et al. in view of Froidevaux does not disclose the element "said second tube being of a length sufficient to substantially eliminate the incidence of resonance" as recited in claim 1. Applicant's amended claim 12 now includes "wherein said second tube has a length selected to limit reflections or resonance within said second tube". As stated above, there is no motivation in either Gleeson or Froidevaux to combine the mass taught by Froidevaux in the structure taught by Gleeson to arrive at the elements recited in Applicant's claim 1. Likewise, such required motivation is absent when combining Gleeson et al in view of Froidevaux, and the combination also fails to recite all of the elements and/or structure of Applicant's amended claim 12. Consequently, Gleeson et al. in view of Froidevaux fails to recite all the elements of Applicant's amended claim 12. As a result, Applicant's dependent claims 14-15 and 17 by virtue of their dependency upon amended independent claim 12 are also patentable over the combination of Gleeson et al. in view of Froidevaux.

Applicant respectfully requests withdrawal of the rejection against claims 1-6, 8-11, 14-15 and 17 under 35 U.S.C. §103(a).

Claim 7 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Gleeson et al. in view of Froidevaux as applied to claims 1-6 and 8-11 above and further in view of Lawsing.

Lawsing discloses a pressure or temperature sensor that translates a pressure or temperature signal into a hydraulic pressure signal (see abstract). Lawsing does not teach, suggest or motivate one skilled in the art the element "a terminating element attached to said first end of said second tube wherein

said second tube is of a length sufficient to substantially eliminate the incidence of resonance" as recited in Applicant's claim 1. As mentioned above, the combination of Gleeson et al. in view of Froidevaux fails to recite all the elements of Applicant's independent claim 1 including the aforementioned element. Lawsing cannot correct the deficiencies present in the combination of Gleeson et al. in view of Froidevaux. As a result, claim 7 by virtue of its dependency upon claim 1 is patentable over the combination of Gleeson et al. in view of Froidevaux and further in view of Lawsing. Applicant respectfully requests the withdrawal of the rejection of claim 7 under 35 U.S.C. §103(a).

Claims 20-21 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Gleeson et al. in view of Acker.

Acker discloses a differential pressure torque measurement system that generates the torque signal from a differential gas pressure measured across the power turbine (see abstract). As described above, Applicant's amended independent claim 12 now recites the element "wherein said second tube has a length selected to limit reflections or resonance within said tube". Acker does not disclose any teachings pertaining to the element "wherein said second tube has a length selected to limit reflections or resonance within said tube" as recited in Applicant's amended claim 12. As discussed above, Gleeson et al. alone does not teach the element "wherein said second tube has a length selected to limit reflections or resonance within said tube" as recited in Applicant's amended claim 12. Acker cannot correct the deficiencies present in Gleeson et al. As a result, claims 20-21, by virtue of their dependency ultimately upon amended independent claim 12, are patentable over the

combination of Gleeson et al. in view of Acker. Applicant respectfully requests the withdrawal of the rejection against claims 20-21 under 35 U.S.C. §103(a).

Rejection under 35 U.S.C. §102

Claims 12, 13, 18, and 19 have been rejected under 35 U.S.C. §102(e) as being anticipated by Gleeson et al.

The Examiner in framing his objection stated the following:

> "Regarding claim 12 Gleeson teaches a first tube 18; a second tube 72; and a first sensor 48 between said first and second tubes.
>
> Regarding claim 13 Gleeson teaches measuring transient dynamics within said first tube [0024].
>
> Regarding claim 18 Gleeson teaches a cooled sensor [0024].
>
> Regarding claim 19 Gleeson teaches a pressure transducer 48."
>
> (Office action, page 6, paragraph 5)

Applicant's amended independent claim 12 now recites the element "wherein said second tube has a length selected to limit reflections or resonance within said second tube". Gleeson et al. does not teach the element "wherein said second tube has a length selected to limit reflections or resonance within said second tube" as recited in Applicant's amended claim 12. As a result, Gleeson et al. fails to recite all the elements of Applicant's amended independent claim 12. Applicant's claim 12, and dependent claims 13, 18, and 19 by virtue of their dependency upon claim 12, are not anticipated by Gleeson et al. Applicant respectfully requests the withdrawal of the rejection against claims 12, 13, 18 and 19 under 35 U.S.C. §102(e).

If any fees are required in connection with this case, it is respectfully requested that they be charged to Deposit Account No. 02-0184.

Respectfully submitted,

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Date: January 27, 2005

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: "Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on January 27, 2005

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Antoinette Sullo